Paper No. 20

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

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Ex parte RAY T. TOWNSEND

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Appeal No. 2000-1052
Application No. 09/060,012

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ON BRIEF

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Before PAK, DELMENDO, and JEFFREY T. SMITH, Administrative Patent Judges.

DELMENDO, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on an appeal under 35 U.S.C. § 134 from the examiner's final rejection of claims 22 and 24 in the above-identified application. Claims 20, 21, and 26, which are the only other pending claims, have been withdrawn from further consideration pursuant to a restriction requirement. 37 CFR § 1.142(b) (1959).

The subject matter on appeal relates to a method of injecting fluid (pickle) into a meat product. (Appeal brief

filed Aug. 26, 1999, paper 16, pages 4-6.) Further details of this appealed subject matter are recited in appealed claims 22 and 24 reproduced below:

> 22. A method of injecting fluid into a meat product, comprising,
> continually and longitudinally moving a meat product having an upper surface through a meat injection station, and injecting a fluid at spaced points over said upper surface into said meat product while said meat product is on and moving through said meat injection station,
> moving a battery of fluid injection needles connected to a source of fluid into and out of a meat product on said injection station at a variable speed,
> coordinating the volume of fluid injected through said needles with the variable velocity of said needles so that fluid is uniformly discharged from said needles into a meat product on said meat injection station in spite of the varying speed of said needles.
>
> 24. The method of claim 22 wherein said needles are raised and lowered towards and away from said meat injection station in a circular path.

The examiner relies on the following prior art references as evidence of unpatentability:

Rejsa et al. (Rejsa)	3,675,567	Jul. 11, 1972
Townsend	3,863,556	Feb. 4, 1975

In addition, the examiner cites the following prior art references "to rebut appellant's arguments...related to the structure and function of the nozzles disclosed in the patent to

Rejsa..." (examiner's answer of Sep. 20, 1999, paper 17, page 4):

Sholl	3,649,299	Mar. 14, 1972
Sholl	3,769,037	Oct. 30, 1973

Appealed claims 22 and 24 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Townsend in view of Rejsa. (Id. at pages 4-5.)

We reverse this rejection.

Before discussing the merits of the examiner's proposed combination of prior art references, we consider the significance of the last recited step (i.e., the "coordinating..." step) of appealed claim 22. The appellant explains that conventional fluid injection machines have a vertically reciprocating crosshead, which is typically driven by a crank, and multiple needles. (Specification, page 1, first paragraph.) The appellant further discloses that the prior art processes using these conventional fluid injection machines suffer from several drawbacks. (Id. at pages 1-2.) Specifically, one of the problems is identified in the specification as follows (id.):

> Such fluid injection machines for meat products have been used for many years, but they have several negative factors, one of which is very detrimental. The distribution of pickle throughout the [pork] belly should be as uniform as possible. That means that

> every cubic centimeter should have the same amount of pickle throughout the entire belly. When the crosshead and needles are moved up and down by a crank mechanism, the velocity of the needles is constantly changing from zero to maximum and back to zero, etc. as the needles move up and down in the belly. With a constant flow pump, the bellies get more or less pickle per cubic centimeter, depending on the velocity of the needles in moving into and out of the meat.
>
> Stated differently pickle is generally supplied into the injector head by a positive displacement pump with constant flow rate. The needles driven by a rotational crank travel at a variable speed through the thickness. When needles are near either top or bottom position, the needle traveling speed is close to zero, while at the middle stroke needles travel at highest speed. More pickle is injected per unit length of travel when needles are moving at slow speed and less pickle is injected at high speed. It is highly desirable to inject equal amount of pickle per unit length of thickness to achieve the best quality of injection.

The appellant's solution to this problem is as follows (id. at page 5):

> The constant change in velocity of the needles means that the time that a needle is passing through each vertical centimeter will constantly be changing from fast to slow to fast to slow. Thus, the flow of pickle should also change accordingly. This invention accomplishes this goal by using a double action piston type pump where the piston is controlled or synchronized by the same drive as the needles. That piston pump is timed exactly with the needle crank, so that the action of the piston pump corresponds with the timing of the crank action that drives the needles. This assures that the flow of pickle from the pump at any instant of time will correspond with the velocity of the needles at that same instant of time. Therefore, the amount of pickle injected into every portion of the belly will be constant and uniform throughout the bellies in spite of the variation in velocity of the needles due to the crank

> action. This is a very important principle because it allows for the use of an efficient crank action to reciprocate the needles and still gives a flow of pickle that corresponds to the velocity of the needles at all times.

We now turn to the examiner's rejection. The examiner states that Townsend "teaches the use of a machine for injecting fluids into meat products, wherein the meat (38) is placed on a conveyor belt (12) and transported to a [sic] injection station (20) where the meat is injected with a fluid by using moving a battery of fluid injection needles (36) connected to a source of fluid into and out of the meat product..." (Answer, page 4.) According to the examiner (id.), Townsend does not disclose "continuous longitudinal movement of the meat product while being injected with fluid."

The examiner next relies on Rejsa for "the concept of continuous longitudinal movement of a meat product while being injected with fluid in a meat injecting apparatus." (Id.) Based on these factual findings, the examiner concludes (id. at page 5):

> Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided Townsend with the continuous longitudinal movement of the meat product while being injected as taught by Rejsa et al. in order to rapidly and efficiently inject a high throughput of meat product an hour with liquid flavoring or tenderizing materials or both, simultaneously injecting different

> cuts of meat, and the ability to inject different quantities of liquid into the meat product.

The appellant, on the other hand, argues that neither Townsend nor Rejsa teaches or suggests the "coordinating" step recited in appealed claim 22. (Appeal brief, page 11.)

We must agree with the appellant. The examiner does not point to any portion of either Townsend or Rejsa establishing that the applied prior art expressly teaches, or would have suggested to one ordinary skill in the art, the "coordinating" step recited in appealed claim 22. Because the proposed combination of references does not satisfy all of the claim limitations, the examiner's rejection fails.

The two Sholl patents, which are not listed in the statement of the rejection,[1] are said to "illustrate that...the nozzle contacts and penetrates the meat product at the time the fluid is injected into the meat product." (Answer, page 7.) In addition to our determination that these references do not remedy the fundamental deficiency in the examiner's combination of Townsend and Rejsa, we also note that the examiner has misinterpreted the teachings of these references. Contrary to

[1] In re Hoch, 428 F.2d 1341, 1342 n.3, 166 USPQ 406, 407 n.3 (CCPA 1970)("Where a reference is relied on to support a rejection, whether or not in a 'minor capacity,' there would appear to be no excuse for not positively including the reference in the statement of rejection.").

the examiner's statement, these references do not teach that the "nozzle contacts and penetrates the meat product." The Sholl patents merely teach that the focal point of the jet streams, not the nozzles, can be located at the surface or beneath the surface of the meat product. (Column 2, lines 44-48 of the '299 patent; column 3, lines 31-39 of the '037 patent.)

For these reasons, we reverse the examiner's rejection under 35 U.S.C. § 103(a) of appealed claims 22 and 24 as unpatentable over Townsend in view of Rejsa.

The decision of the examiner is reversed.

REVERSED

Chung K. Pak	)	
Administrative Patent Judge	)	
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	)	
	)	BOARD OF PATENT
Romulo H. Delmendo	)	
Administrative Patent Judge	)	APPEALS AND
	)	
	)	INTERFERENCES
	)	
	)	
Jeffrey T. Smith	)	
Administrative Patent Judge	)	

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